FACT SHEET

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0068381; AI 19937; PER20040001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. **THE APPLICANT IS:** St. Mary Parish Wards 5 & 8 Joint Sewer Commission
Regional Sewerage Treatment Facility
Post Office Box 181
Berwick, LA 70342

II. **PREPARED BY:** Todd Franklin

DATE PREPARED: December 27, 2005

III. **PERMIT ACTION:** reissue LPDES permit LA0068381, AI 19937; PER20040001

LPDES application received: July 23, 2004

EPA has not retained enforcement authority.

LPDES permit issued: April 27, 1999
LPDES permit expired: April 30, 2004

IV. **FACILITY INFORMATION:**

A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Town of Berwick (4,418), the City of Patterson (5,130), the Consolidated Water and Sewer Commission No. 2 (4,351), and Sewer District No. 8 (1,751).

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located at 735 Cotton Road in Berwick, St. Mary Parish.

D. The treatment facility consists of two aerated holding basins and a three cell aerated lagoon system. Disinfection is by chlorination.

E. Outfall 001

Discharge Location: Latitude 29° 38' 49" North
Longitude 91° 17' 23" West

Description: treated sanitary wastewater

Design Capacity: 6 MGD

Type of Flow Measurement which the facility is currently using:

Combination Totalizing Meter / Continuous Recorder

Outfall 002

Discharge Location: Latitude 29° 39' 39" North
Longitude 91° 17' 45" West

Description: treated sanitary wastewater being discharged onto the Kemper Williams Golf Course for irrigation purposes

Design Capacity: 6 MGD

V. RECEIVING WATERS:

The discharge is into the Intracoastal Waterway in subsegment 010803 of the Atchafalaya River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The **critical low flow** (7Q10) of the Intracoastal Waterway is 10,500 cfs.

The **hardness value** is 161 mg/l and the **fifteenth percentile value for TSS** is 42 mg/l.

The designated uses and degree of support for Subsegment 010803 of the Atchafalaya River Basin are as indicated in the table below[1/]:

Overall Degree of Support for Segment	Degree of Support of Each Use						
Full	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Full	Full	Full	N/A	N/A	N/A	N/A

[1/]The designated uses and degree of support for Subsegment 010803 of the Atchafalaya River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 1998 Water Quality Management Plan, Volume 5, Part B, Water Quality Inventory, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 010803 of the Atchafalaya River Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Pallid Sturgeon, which is listed as a threatened/endangered species. The draft permit has been sent to the FWS for review. As set forth in the Memorandum of Understanding between the LDEQ and the FWS, the FWS will determine whether or not the issuance of the LPDES permit will likely have an adverse affect upon the Pallid Sturgeon.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Todd Franklin
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 010803, Intracoastal Waterway-Bayou Boeuf Lock to Bayou Sale, is not listed on LDEQ's Final 2004 303(d) List as impaired, and to date no TMDLs have been established. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

Interim Effluent Limits:

According to LAC 33:IX.2713.A.1, any schedules of compliance shall require compliance as soon as possible, but not later than the applicable statutory deadline of three years, as per the Clean Water Act. In the case of Water Quality Based Limits, precedence generally allows three years to comply. Therefore, an interim period is proposed to allow the facility to comply with the Water Quality Based Limits for Chlordane. During the interim period, a monitoring and reporting requirement shall be placed into the permit for this parameter.

OUTFALL 001

Interim limits shall become effective on the effective date of the permit and expire three years from the effective date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD_5	1501	30 mg/l	45 mg/l	Limits are set in accordance with the Water Quality Management Plan (WQMP) for sanitary waste treatment facilities that discharge in a receiving stream having a 7Q10 flow greater than or equal to the minimum 7Q10 flow of either the Atchafalaya River, the Red River, or the Mississippi River.
TSS	1501	30 mg/l	45 mg/l	Limits are set in accordance with the WQMP for sanitary waste treatment facilities that discharge in a receiving stream having a 7Q10 flow greater than or equal to the minimum 7Q10 flow of either the Atchafalaya River, the Red River, or the Mississippi River.

Priority Pollutants

Effluent Characteristics	Monthly Avg. (lbs./day)	Daily Maximum (lbs./day)	Basis
Chlordane	Report	Report	Water Quality Screen indicated a need for a Water Quality Based Limit. Therefore, for monitoring and data information gathering purposes, Report is proposed in the interim period. See Appendix B-1 for additional information.

*If any individual analytical test result is less than the minimum quantification level listed below, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) mass calculations and reporting requirements for the pollutants listed below:

Pollutant	MQL
Chlordane	0.2 µg/L

Other Effluent Limitations:

1) **Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units or greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

Toxicity Characteristics

In accordance with EPA's Region 6 Post-Third Round Toxics Strategy, permits issued to treatment works treating domestic wastewater with a flow (design or expected) greater than or equal to 1 MGD shall require biomonitoring at some frequency for the life of the permit or where available data show reasonable potential to cause lethality, the permit shall require a whole effluent toxicity (WET) limit (*Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards*, September 27, 2001 VERSION 4).

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. LAC 33:IX.1121.B.3. provides for the use of biomonitoring to monitor the effluent for protection of State waters. The biomonitoring procedures stipulated as a condition of this permit are as follows:

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No. LA0068381, **Biomonitoring Section** for the organisms indicated below.

TOXICITY TESTS	FREQUENCY
48 Hour Definitive Toxicity Test using Daphnia pulex	1/quarter
48 Hour Definitive Toxicity Test using fathead minnow (Pimephales promelas)	1/quarter

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be

used in the toxicity tests. These additional concentrations shall be 1.1%, 1.5%, 2.0%, 2.6%, and 3.5%. The low-flow effluent concentration (critical low-flow dilution) is defined as 2.6% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. According to the Implementation of State Standards, acute toxicity testing in addition to, or in lieu of, chronic toxicity testing may be imposed for discharges that have a critical dilution of five percent (5%) or less. An acute to chronic ratio has been applied in the calculations. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in the **Biomonitoring Section** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in the **Biomonitoring Section** of the permit.

The permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.2383. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Final Effluent Limits:

OUTFALL 001

Final limits shall become effective three years from the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD_5	1501	30 mg/l	45 mg/l	Limits are set in accordance with the Water Quality Management Plan (WQMP) for sanitary waste treatment facilities that discharge in a receiving stream having a 7Q10 flow greater than or equal to the minimum 7Q10 flow of either the Atchafalaya River, the Red River, or the Mississippi River.
TSS	1501	30 mg/l	45 mg/l	Limits are set in accordance with the WQMP for sanitary waste treatment facilities that discharge in a receiving stream having a 7Q10 flow greater than or equal to the minimum 7Q10 flow of either the Atchafalaya River, the Red River, or the Mississippi River.

Priority Pollutants

Effluent Characteristics	Monthly Avg. (lbs./day)	Daily Maximum (lbs./day)	Basis
Chlordane	0.0309	0.0734	Water Quality Based Limit

*If any individual analytical test result is less than the minimum quantification level listed below, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) mass calculations and reporting requirements for the pollutants listed below:

Pollutant	MQL
Chlordane	0.2 µg/L

The above draft priority pollutant limit(s) for Chlordane are based upon the evaluation of two effluent analyses (Geomean of 0.5 µg/l and 0.86 µg/l = 0.655744 µg/l). The permittee may conduct and submit the results of three (3) or more additional effluent analyses to either refute or substantiate the presence of the above toxic pollutants. The additional analyses will be evaluated by this Office to determine if the pollutants are potentially in the effluent and if it potentially exceeds the State's water quality standards.

Other Effluent Limitations:

1) **Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units or greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

Toxicity Characteristics

In accordance with EPA's Region 6 Post-Third Round Toxics Strategy, permits issued to treatment works treating domestic wastewater with a flow (design or expected) greater than or equal to 1 MGD shall require biomonitoring at some frequency for the life of the permit or where available data show reasonable potential to cause lethality, the permit shall require a whole effluent toxicity (WET) limit (*Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards*,

September 27, 2001 VERSION 4).

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. LAC 33:IX.1121.B.3. provides for the use of biomonitoring to monitor the effluent for protection of State waters. The biomonitoring procedures stipulated as a condition of this permit are as follows:

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No. LA0068381, **Biomonitoring Section** for the organisms indicated below.

TOXICITY TESTS	FREQUENCY
48 Hour Definitive Toxicity Test using Daphnia pulex	1/quarter
48 Hour Definitive Toxicity Test using fathead minnow (Pimephales promelas)	1/quarter

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional concentrations shall be 1.1%, 1.5%, 2.0%, 2.6%, and 3.5%. The low-flow effluent concentration (critical low-flow dilution) is defined as 2.6% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. According to the Implementation of State Standards, acute toxicity testing in addition to, or in lieu of, chronic toxicity testing may be imposed for discharges that have a critical dilution of five percent (5%) or less. An acute to chronic ratio has been applied in the calculations. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in the **Biomonitoring Section** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in the **Biomonitoring Section** of the permit.

The permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.2383. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

OUTFALL 002 (Discharge onto the Kemper Williams Golf Course)

Final limits shall become effective the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD_5	---	30 mg/l	45 mg/l	Best Professional Judgement (BPJ) – The discharge to the golf course is for irrigation only and is not expected to have runoff into waters of the state. However, due to the potential of runoff, secondary limits shall be placed into the permit.
TSS	---	30 mg/l	45 mg/l	Best Professional Judgement (BPJ) – The discharge to the golf course is for irrigation only and is not expected to have runoff into waters of the state. However, due to the potential of runoff, secondary limits shall be placed into the permit.

Other Effluent Limitations:

1) **Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units or greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7

X. PREVIOUS PERMITS:

LPDES Permit No. LA0033227: Issued: April 27, 1999
Expired: April 30, 2004

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow	Report	Report	Continuous	Recorder
BOD_5	30 mg/l	45 mg/l	5/week	12 Hr. Composite
TSS	30 mg/l	45 mg/l	5/week	12 Hr. Composite
Fecal Coliform Colonies/100 ml	200	400	5/week	Grab
pH	Range: (6.0 – 9.0 su)		5/week	Grab
Biomonitoring	---	---	1/quarter	24 Hr. Composite

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspection performed for this facility.

Date – June 1, 2005
Inspector - LDEQ
Findings and/or Violations -

1. Facility is not sampling five times a week as required by the permit. Records review revealed that sampling varies from two to four times per week.
2. Facility does exceed design capacity of 6 MGD due to inflow and infiltration. 2004-2005 flow records review showed design capacity was exceeded during rain events.
3. Permit limits for TSS monthly average loading, monthly average concentration, and weekly average were exceeded in April of 2005.
4. Flow meter was found to be -31.9% in error.

B) Compliance and/or Administrative Orders

A review of the files indicates that no recent enforcement actions have been administered against this facility.

C) DMR Review

A review of the discharge monitoring reports for the period beginning June 2003 through May 2005 has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
TSS, Monthly Avg.	001	May 2004	1501 lb/day	1606.83 lb/day
TSS, Monthly Avg.	001	May 2004	30 mg/l	40 mg/l
TSS, Weekly Avg.	001	May 2004	45 mg/l	49 mg/l

XII. ADDITIONAL INFORMATION:

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon water quality studies. These studies may indicate the need for more advanced wastewater treatment. Studies of similar dischargers and receiving water bodies have resulted in monthly average effluent limitations of 5 mg/l $CBOD_5$, and 2 mg/l NH_3-N. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 6 MGD.

Effluent loadings are calculated using the following example:

BOD_5: 8.34 gal/lb x 6 MGD x 30 mg/l = 1501 lb/day

At present, the Monitoring Requirements, Sample Types, and Frequency of Sampling as shown in the permit are standard for facilities of flows between 5.00 and 10.00 MGD.

Outfall 001

Effluent Characteristics	Monitoring Requirements	
	Measurement Frequency	Sample Type
Flow	Continuous	Recorder
BOD_5	5/week	12 Hr. Composite
Total Suspended Solids	5/week	12 Hr. Composite
Fecal Coliform Bacteria	5/week	Grab
Biomonitoring		
Daphnia pulex	1/quarter	24 Hr. Composite
Pimephales promelas	1/quarter	24 Hr. Composite
pH	5/week	Grab
Chlordane	1/quarter	24 Hr. Composite

Outfall 002

Effluent Characteristics	Monitoring Requirements	
	Measurement Frequency	Sample Type
Flow	1/day	Estimate
BOD_5	1/week	Grab
TSS	1/week	Grab
Fecal Coliform Bacteria	1/week	Grab
pH	1/day	Grab

The permittee shall achieve compliance with the effluent limitations and monitoring requirements specified for discharges in accordance with the following schedule:

ACTIVITY	DATE
Achieve Interim Effluent Limitations and Monitoring Requirements	Effective date of the permit
Achieve Final Effluent Limitations and Monitoring Requirements	Three years from the effective date of the permit

The permittee shall achieve compliance with the final effluent limitations specified for Chlordane within three years of the effective date of this permit.

The permittee shall submit a progress report outlining the status of the activities on a yearly basis until compliance is achieved.

No later than fourteen calendar days following the date for compliance for Chlordane, the permittee shall submit a written notice of compliance or noncompliance.

Pretreatment Requirements

The St. Mary Parish Wards 5 & 8 Joint Sewer Commission – Regional WWTP services the Town of Berwick and the City of Patterson. On April 26, 2005, the Parish certified that it does not accept industrial wastewater into the Wards 5 & 8 Joint Sewer Commission – Regional WWTP.

After reviewing the 2005 Directory of Louisiana Manufacturers and via discussions with St. Mary Parish wastewater plant personnel, it was ascertained that there were no pretreatment categorical standards for the indirect dischargers to the plant or the discharge is of sanitary wastewater only. The wastewater from any industrial facilities have a minimal potential for pass through or interference with the operation of the St. Mary Parish Wards 5 & 8 Joint Sewer Commission – Regional WWTP. Therefore, it is recommended that LDEQ Option 1 Pretreatment Language be included in LPDES Permit LA0068381. This recommendation is in accordance with 40 CFR Part 403 regulations, the General Pretreatment Regulations for Existing and New Sources of Pollution contained in LAC Title 33, Part IX, Subpart T and the Best Professional Judgement (BPJ) of the reviewer.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Fact Sheet.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process , Vol. 5, "Water Quality Inventory Section 305(b) Report", Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards", Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program", Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, St. Mary Parish Wards 5 & 8 Joint Sewer Commission, Regional Sewerage Treatment Facility, July 23, 2004.